

B. Remarks

Claims 1-25 are pending in the application. Claims 20-25 have been withdrawn from consideration. Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Publication No. 03-221922 (“Yuichi”). Applicants hereby cancel claims 20-25, amend claims 2 and 16-19, and add new claims 26-44.

1. Claims 1-14 Are Patentable Over Yuichi.

Each of claims 1-14 recites, either explicitly or through dependency, the steps of “depositing a layer of a first conductive material onto a surface of a substrate; depositing a layer of a second conductive material onto said layer of a first conductive material; selectively etching a portion of said layer of a second conductive material; and selectively etching a portion of said layer of a first conductive material.” The examiner has taken the position that Yuichi teaches or renders obvious this combination of steps. Applicants respectfully disagree and traverse this basis for rejection.

To the best of Applicants’ understanding, based on the English translation of Yuichi mailed by the Office to Applicants’ attorney on August 16, 2006 (and having no other translation of Yuichi), Yuichi teaches a method for making a display device. Yuichi’s method, described at pages 4-7, comprises, among others, the steps of forming a common electrode and wiring patterns on a transparent substrate by (1) doping a metal oxide with a small amount of noble metal, (2) depositing the doped metal oxide onto the transparent substrate, (2) etching the deposited doped metal oxide to form the electrode and wiring patterns, and (3) forming a nickel layer on the wiring patterns by means of electroless plating. Yuichi teaches that the noble metal used to dope the metal oxide acts as a catalytic nucleus allowing the electroless nickel plating layer to be formed on only the thusly-created wiring patterns. See Yuichi at 6. As such, to the extent Yuichi can be

deemed to teach depositing a second layer of conductive material (*e.g.*, the nickel layer) onto a first layer of conductive material (*e.g.*, the conductive film that is etched to form wiring patterns), Yuichi does not teach or suggest etching such second layer of conductive material. Indeed, because Yuichi's method is directed expressly to depositing such second layer of conductive material, *i.e.*, the nickel layer, only where specifically desired, namely, on the wiring patterns defined by the foregoing sputtering and etching steps, Yuichi teaches away from etching a second layer of conductive material. It would not be obvious to one skilled in the art to modify Yuichi by etching the nickel layer because to do so would be directly contrary to the teachings of Yuichi.

In describing the related art at pages 2-3, Yuichi discloses a method comprising, among others, the steps of (1) patterning a transparent conductive film on a transparent substrate, (2) sensitizing (wherein SnCl_2 apparently becomes attached to the foregoing patterned conductive film), (3) activating (wherein Pd apparently becomes deposited on the foregoing conductive film), and (4) forming a Ni thin film on the patterned conductive film by means of electroless plating. Nowhere in this discussion of the related art does Yuichi teach or suggest the steps of etching either a first conductive layer, etching a second conductive layer, or both.

Based on at least the above, Applicants submit that claims 1-14 are allowable and request reconsideration and withdrawal of the pending rejections of these claims. Applicants submit that the present amendment of claim 2 corrects a typographical error and does not affect patentability.

2. Claims 15-18 Are Patentable Over Yuichi.

Each of claims 15-18 recites, either explicitly or through dependency, the steps of “depositing a layer of a first conductive material onto a surface of a substrate; depositing a layer of a second conductive material onto said layer of a first conductive material; selectively etching a first portion of said layer of a second conductive material and a portion of said layer of first

conductive material, and selectively etching a second portion of said layer of a second conductive material.” The examiner has taken the position that Yuichi teaches or renders obvious this combination of process steps. Applicants respectfully disagree and traverse this basis for rejection for at least the same reasons set forth above in connection with claims 1-14.

Based on at least the above, Applicants submit that claims 15-18 are allowable and request reconsideration and withdrawal of the pending rejections of these claims. Applicants submit that the present amendments of claims 16-18 correct minor errors and do not affect patentability.

3. Claim 19 is Patentable Over Yuichi

Claim 19 as filed recites, among others, the steps of “depositing a layer of a first conductive material onto a first surface of a substrate; depositing a layer of a second conductive material onto a second surface of said substrate; selectively etching a portion of said layer of a first conductive material; [and] selectively etching a portion of said layer of a second conductive material.” Claim 19 as filed further recites “perforating said substrate at a predetermined location; and electrically coupling said layer of a first conductive material with said layer of a second conductive material.” The examiner has taken the position that Yuichi teaches or renders obvious this combination of process steps. Applicants respectfully disagree and traverse this basis for rejection.

Applicants submit that Yuichi does not teach the first four steps stated above for at least the reasons stated above in connection with claims 1-14. Applicant also submit that Yuichi neither teaches nor renders obvious the steps of perforating said substrate at a predetermined location; and electrically coupling said layer of a first conductive material with said layer of a second conductive material. Indeed, the examiner has recognized that Yuichi does not disclose the step of perforating the substrate at a predetermined location and has made no comment concerning the step of

electrically coupling said layer of a first conductive material with said layer of a second conductive material.

With regard to the step of perforating, without citing any support, the examiner contends that “in order to make a plurality of these electrical circuits, one normally will deposit the conductive materials onto a large substrate and perforate that substrate in order to provide a plurality of circuits from a large substrate.” Office Action at 4. As best understood by Applicants, the examiner’s position in this regard appears to be that it is known in the art to prepare a plurality of circuits by forming a plurality of circuit patterns on a single, large substrate and then perforating the large substrate so that it may be easily divided into a plurality of smaller substrates, each containing a circuit. Applicants make no comment on whether such a process was known to known to one skilled in the art at the time the present invention was made because such process has no bearing on Applicants’ invention as set forth in claim 19 and has no relevance to the allowability of claim 19.

Notwithstanding, Applicants hereby amend claim 19 to further recite the step of electrically coupling said layer of a first conductive material with said layer of a second conductive material being performed “via said penetration.” Support for this amendment can be found, for example, in the specification at p. 7, ll. 13-23. Applicants submit that claim 19 as amended is allowable.

4. New Claims 26-44 Are Allowable.

Applicants hereby add new claims 26-44 to more completely claim the invention. Applicants submit that these claims are fully supported by the specification and are allowable for at least the reasons set forth above.

5. Conclusion

Applicants respectfully submit that the application is in condition for allowance and respectfully request reconsideration thereof.

Respectfully submitted,



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